

PARALLEL CHEMISTRY REACTOR WITH
INTERCHANGEABLE VESSEL CARRYING INSERTS

ABSTRACT OF THE DISCLOSURE

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The base of the modular reactor includes a frame which defines an opening into which one of a plurality of interchangeable reaction vessel carrying inserts can be removeably received. Each insert has an array of recesses adapted to receive a different number of reaction vessels of

10 different sizes. The recesses are positioned such that all arrays are suitable for use with a standard automated liquid handler. The frame has fluid flow channels for regulating the temperature of the lower portions of the vessels. A temperature control module can be received over the base to regulate the temperature of the upper portions of the vessels for reflux reactions. The

15 corner radii of the insert and frame opening cooperate to permit the insert to be received in the frame in only one orientation. The walls of the insert are inclined to facilitate removal by a friction fit tool. Each vessel receiving recess has a self-centering conical or semi-circular shaped bottom to maximize heat transfer and distribute the load uniformly. The vessels seat as close to the

20 bottom surface of the base as possible to facilitate use with an air driven magnetic stirrer. A thin, electrically heated plate may be received between the base and the stirrer.

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